

Work Order ID 68297

Monday, April 11, 2011 1:19:43 PM

Page 1

Item ID: D4154-041

Accept

Revision ID:

Item Name: Wearplate Assembly

Start Date: 4/11/2011 Start Qty: 6.00

Required Date: 4/15/2011 Req'd Qty: 6.00

Reference:

Approvals: Process Plan:

Date: 11-04-11

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D4154

204 B 11-04-12

100

0.00



Large Fab

Large Fab

Memo

0.00

1- on D4155-1, fill cut outs with hardcoat welding rod as per dwg D4154
2059 B Hardcoat Welding Rod
BATCH# 1117609

2-weld D4155-1 to wearplate by positioning holes together as per dwg D4154
304 S.S. Welding Rod
BATCH# 1107051

3-Transfer drill holes in bar

4- Use DT9684 to check fit after welding

110

QC9- Inspect visual per QSI004- Fusion Welds

0.00



QC

Quality Control

Memo

0.00

EL 11-5-14 (X2)

Pl 11-05-16 (X2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 68297

Monday, April 11, 2011 1:19:43 PM



Item ID: D4154-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Wearplate Assembly

Start Date: 4/11/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 4/15/2011 Req'd Qty: 6.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

130

Grey Sandtex(Ref:4.3 5.6) per QSI005 4.3

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME: 8:40

OVEN TEMPERATURE 320

FINISH TIME: 9:10

140

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

2X ~~✓~~ M-L 11/05/16

2 BL 11:5-16.

ATO

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D4154-041 PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: 11 Date: 11-05-17

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR: <u>68297-1</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>11/05/16</u>	<u>#130</u>	<u>Parts were found wrong when Day's calls for no power cont.</u>		<u>Remove steps for PLC on w/o.</u>	<u>11.05.16</u>			<u>S</u>
		<u>confusion due to both</u>		<u>Accurately this was fixed</u>	<u>11/05</u>			<u>11/05/16</u>
		<u>Rev A + Rev B Dimp.</u>		<u>11.05.16 only</u>				<u>11.05.16</u>
		<u>Re: Day was not followed correctly LOA</u>						<u>11.05.16</u>
				<u>ECN 11-553 was given to use on 11.04.14 and the new Route/Born was chg on the same date.</u>				

NOTE: Date & initial all entries

W/O was issue on the 11.04.11

Work Order ID 68297

Monday, April 11, 2011 1:19:43 PM



Page 3

Item ID: D4154-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Wearplate Assembly

Start Date: 4/11/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 4/15/2011 Req'd Qty: 6.00

Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

0.00



Small Fab

Memo

0.00

Small Fab

1- After finish, coat entire top (concave) surface as per note 11 on sheet 2 of 3
dwg D4154

2T 11-05-16 (x2)

160

QCS- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

5/10/16

(+2)

170

Identify as per dwg & Stock Location:

0.00



Packaging

Memo

0.00

Packaging

2

Per 11-05-16 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 68297

Monday, April 11, 2011 1:19:43 PM



Page 4

Item ID: D4154-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Wearplate Assembly

Start Date: 4/11/2011 Start Qty: 6.00



Cust Item ID:

Required Date: 4/15/2011 Req'd Qty: 6.00



Customer:

Reference:

Run Start



Approvals: Process Plan: Date:

Tooling:

Date:

Stop



QC: Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

4/15/16 [Signature]

UHF
11-085-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, April 11, 2011 1:19:49 PM

Page 1

Work Order ID: 68297

Parent Item: D4154-041

Parent Item Name: Wearplate Assembly



Start Date: 4/11/2011

Required Date: 4/15/2011

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:A 10.09.21 new issue DD verf:EC
10.11.04 added DT9684 DD verf:EC

IPP Rev:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4154-1

Manufactured

No

100

Each

1 0000

1

6



Plate

68302 x 2



EL 11-5-14

Location

Loc Qty

Loc Code

WA

1

66312

1

D4155-1

Manufactured

No

100

Each

0.0000

1

6



Bar

66174 x 2



EL 11-5-14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

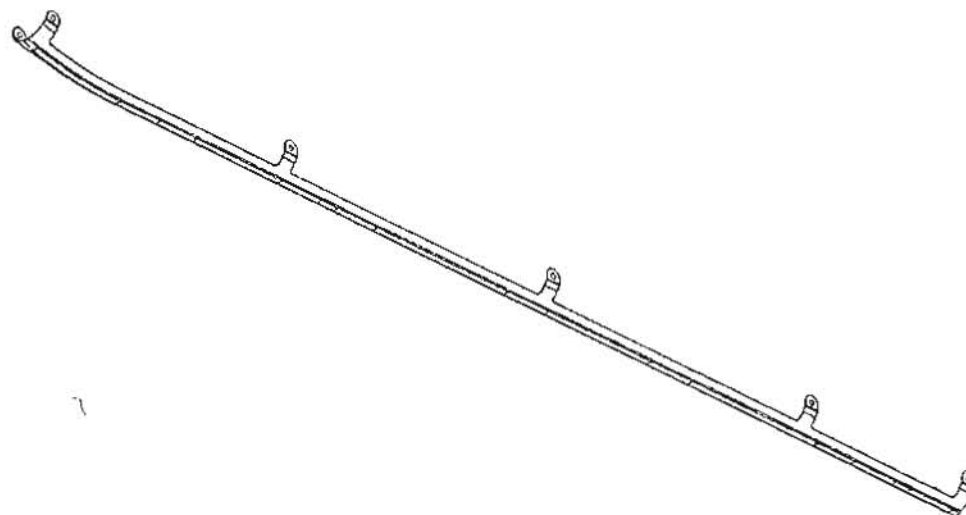
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

ITEM	QTY	P/N	DESCRIPTION
	X	D4154-041	WEARPLATE ASSEMBLY
1	1	D4154-1	PLATE
2	1	D4155-1	BAR
3	A/R	2059B	HARDCOAT
4	A/R	PR 1422	SEALANT (SEE NOTE 11, SHT 2)



D4154-041 WEARPLATE ASSEMBLY

RELEASED
 2010-03-15
 UNDER REVIEW
 11-04-09
 PAQ 11-72

A NEW ISSUE		SC	10.07.22
REV	DESCRIPTION	BY	DATE
DESIGN	SC		
DRAWN	SC		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.07.22		

DART AEROSPACE USA, INC.		REV. A
PORT HADLOCK, WA		SHEET 1 OF 1
DRAWING NO.	D4154	SCALE
TITLE	WEARPLATE ASSEMBLY	NTS

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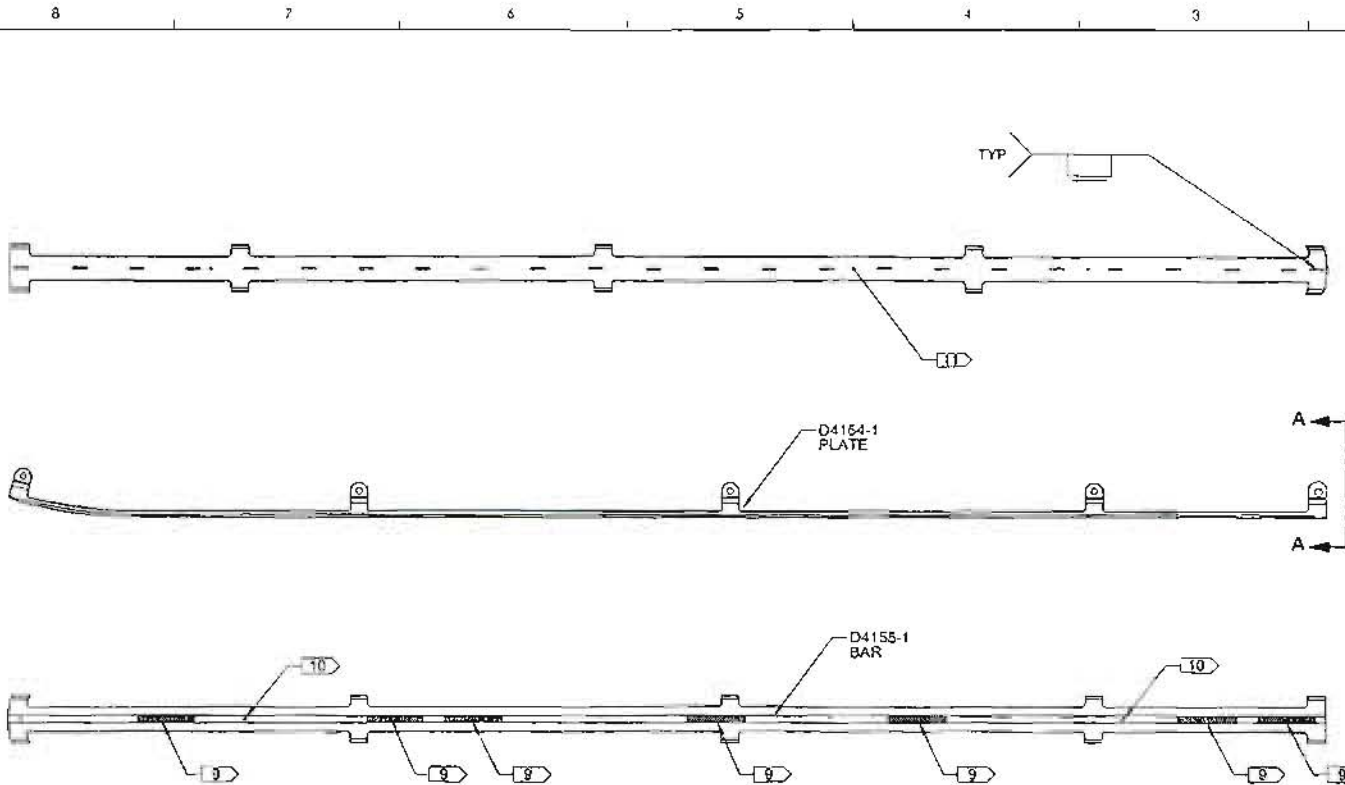
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

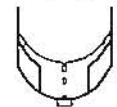
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4154-041 WEARPLATE ASSEMBLY

RELEASED
2010-09-15
UNDER REVIEW
11-04-09



SECTION A-A

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "GREY SANOTEX" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH P/N "D4154-041" PER QSI 044 5.1 (FINE POINT PERMANENT INK MARKER)
- 7) WEIGHT: 5.99 lbs
- 8) WELDING: PER QSI 004
- 9) 2050B HARDCOAT WELD, 0.19 THICK X 0.50 WIDE, FLUSH WITH D4154-1 BAR ON ALL 3 SURFACES AT 7 PLACES
- 10) TRANSFER DRILL Ø0.188 HOLES FROM D4154-1 PLATE TO D4155-1 BAR
- 11) AFTER FINISH, COAT ENTIRE TOP (CONCAVE) SURFACE WITH A LAYER OF SIKAFLEX-2411-291 OR PROSEAL 890 OR PROSEAL 1422 OR MIL-S-8802 CLASS B SEALANT, 0.020-0.040 THICK.

DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	SC	PORT HADLOCK, WA	
CHECKED	JP	DRAWING NO	REV. A
MFG. APPR.	JP	D4154	SHEET 2 OF 3
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	WEARPLATE ASSEMBLY	NTS
DATE	10.07.22	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

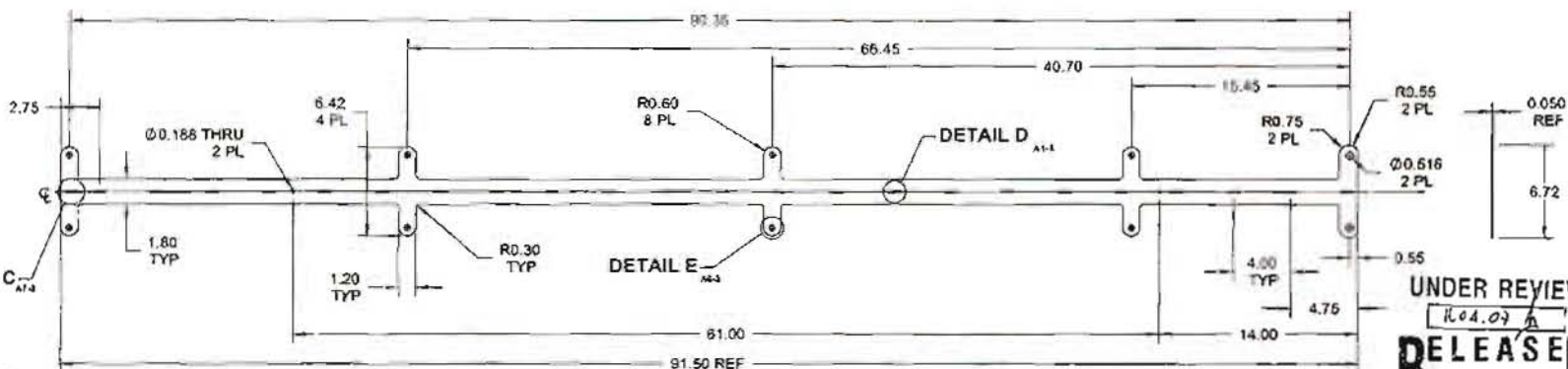
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1.29
R31.7
REF

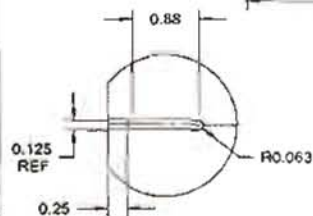
B
B
A4.3

82.54

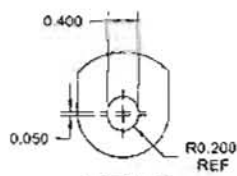
D4154-1 PLATE
(MAKE FROM D4154-1F)



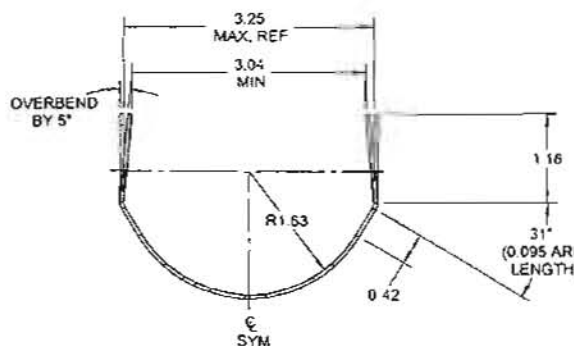
D4154-1F FLAT PATTEN



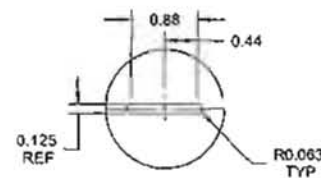
DETAIL C
SLOT DETAIL TYP



DETAIL E
SLOT DETAIL TYP



SECTION B-B



DETAIL D
SLOT DETAIL TYP

NOTES

- 1) MATERIAL : AISI 304/316 STAINLESS STEEL PER AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240 18 GAUGE 0.050 THICK, (REF. DART SPEC. M304S18GA)
- 2) FINISH : NONE
- 3) TOLERANCES : PER DART QS: 0.18 UNLESS OTHERWISE NOTED
- 4) UNITS : INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES, 0.005 TO 0.010 MAX
- 6) IDENTIFICATION : NONE
- 7) WEIGHT : 2.71 lbs

UNDER REVIEW

10.07.07

RELEASED
2010-09-15

DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	SC	PORT HADLOCK, VA	
CHECKED		DRAWING NO	REV. A
MFG APPR.		D4154	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DIE APPR.		WEARPLATE ASSEMBLY	MTS
DATE	10.07.22	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

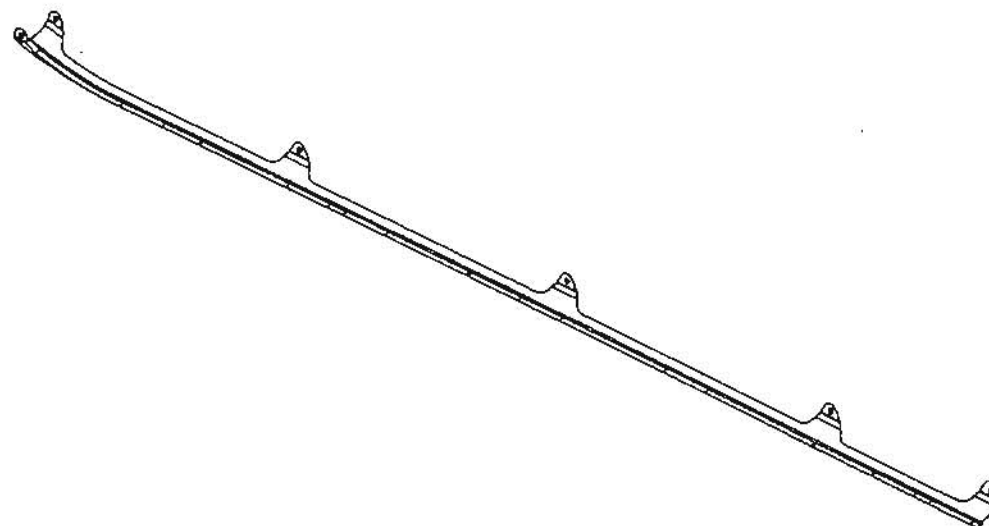
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

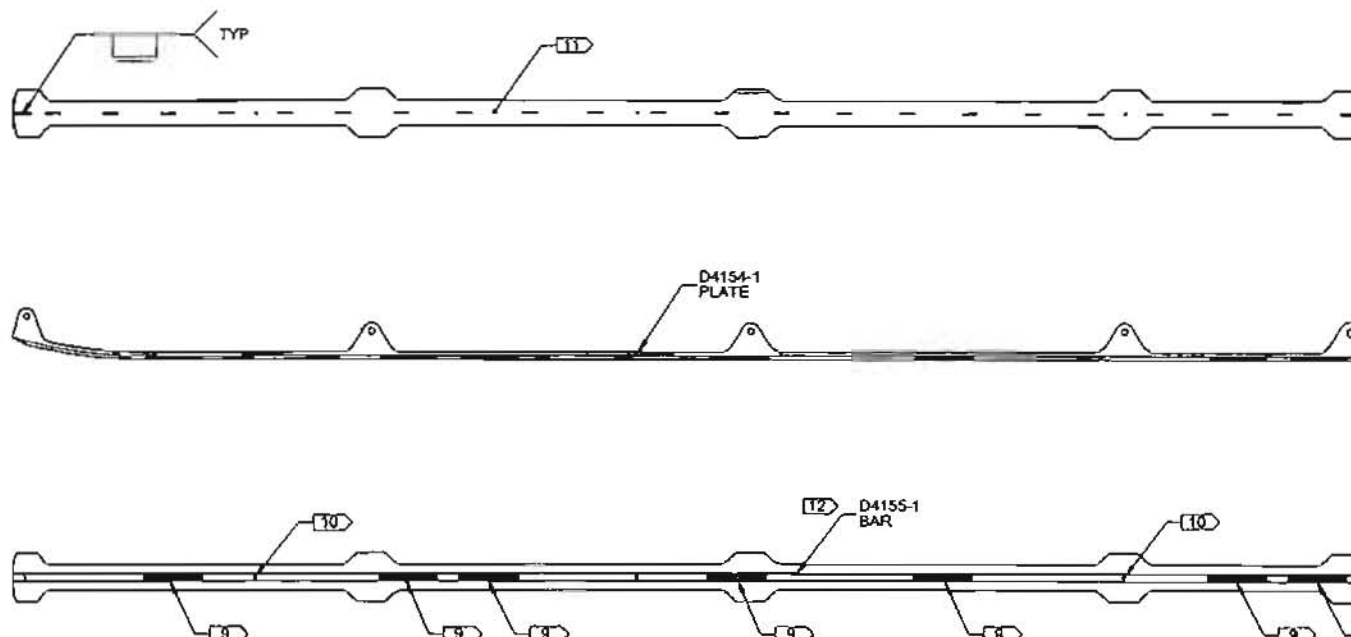
ITEM	QTY	P/N	DESCRIPTION
	X	D4154-041	WEARPLATE ASSEMBLY
1	1	D4154-1	PLATE
2	1	D4155-1	BAR
3	A/R	2050B	HARDCOAT
4	A/R	4714	PLUS ONE ROCKGUARD (SEE NOTE 11, SHT 2)



D4154-041 WEARPLATE ASSEMBLY

68297
RELEASED
 2011-06-13
 JWP

B	ITEM 4 WAS PR1422 (03-1), REMOVED FINISH TO NOTE 2 (A8-2), REMOVED SECTION A-A (NO LONGER REQUIRED); REVISED D4154-1F	MB	11.04.05
A	NEW ISSUE	SC	10.07.22
REV.	DESCRIPTION	BY	DATE
DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	IS	PORT HADLOCK, WA	
CHECKED	JWP	DRAWING NO.	REV. B
MFG. APPR.	JWP	D4154	SHEET 1 OF 3
APPROVED	JWP	TITLE	SCALE
DE APPR.	JWP	WEARPLATE ASSEMBLY	NTS
DATE	11.04.05	<small>COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. ALL INFORMATION IS PROVIDED AS IS WITHOUT WARRANTY OF ANY KIND, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE USER ASSUMES ALL LIABILITY FOR ANY DAMAGE OR INJURY RESULTING FROM THE USE OF THIS INFORMATION.</small>	



D4154-041 WEARPLATE ASSEMBLY

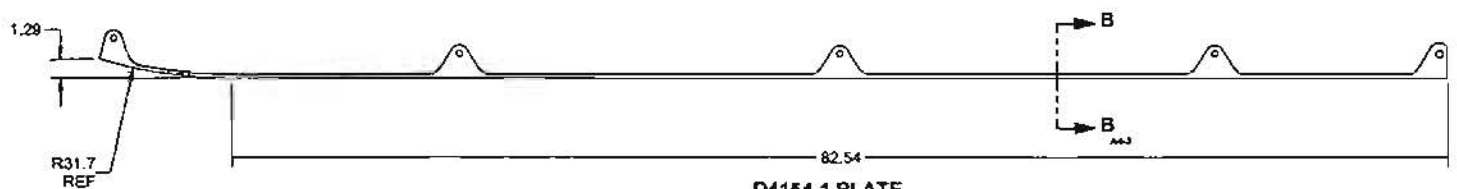
RELEASED
2011-04-13

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH P/N "D4154-041" PER QSI 044 6.1 (FINE POINT PERMANENT INK MARKER)
- 7) WEIGHT: 6.88 lbs
- 8) WELDING: PER QSI 004
- 9) 2050B HARDCOAT WELD, 0.19 THICK X 0.50 WIDE, FLUSH WITH D4154-1 BAR ON ALL 3 SURFACES AT 7 PLACES
- 10) TRANSFER DRILL $\varnothing 0.188$ HOLES FROM D4154-1 PLATE TO D4155-1 BAR
- 11) COAT ENTIRE TOP (CONCAVE) SURFACE WITH A LAYER OF PLUS ONE ROCKGUARD 4714, 0.020-0.040 THICK
- 12) FORM TO MATCH PROFILE OF D4154-1 AT TIME OF WELDING

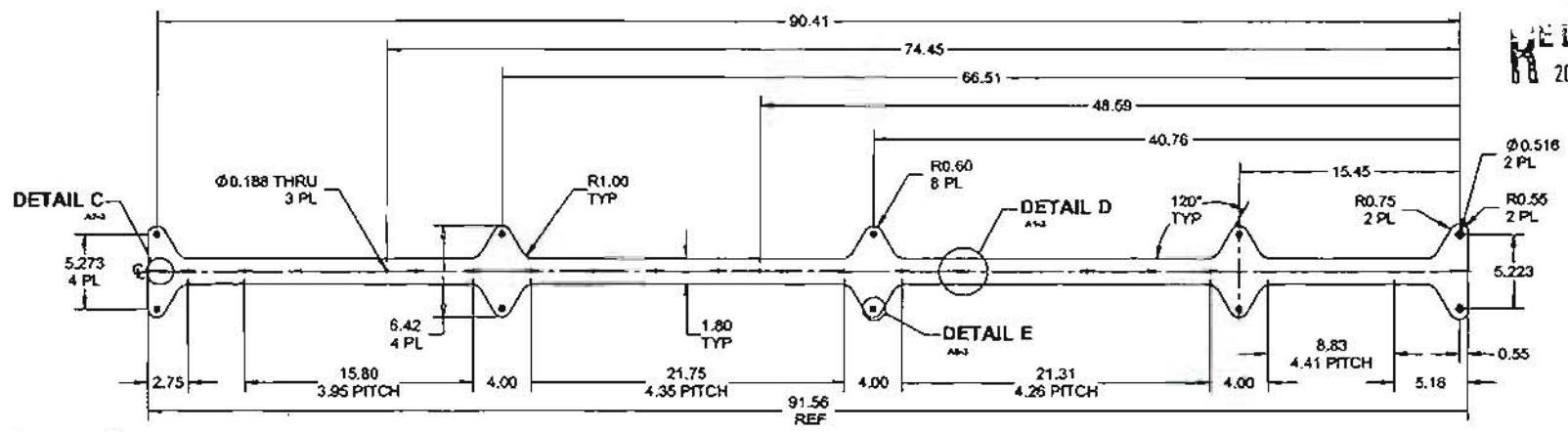
DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN	5	PORT HADLOCK, WA	
CHECKED	CP	DRAWING NO.	REV. B
MFG. APPR.	JP	D4154	SHEET 2 OF 3
APPROVED	MP	TITLE	SCALE
DE APPR.	TH	WEARPLATE ASSEMBLY	NTS
DATE	11.04.05	COPYRIGHT © 2011 BY DART AEROSPACE USA, INC.	

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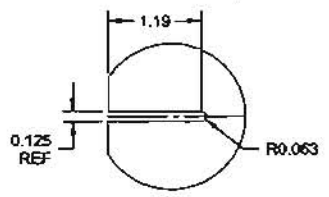


D4154-1 PLATE
(WORK FROM D4154-1F)

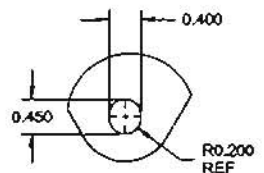
RELEASED
2011-06-13
MB



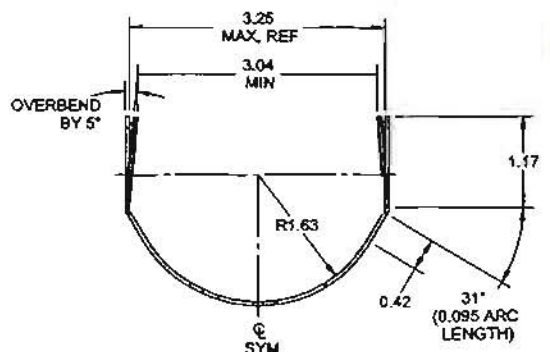
D4154-1F FLAT PATTERN



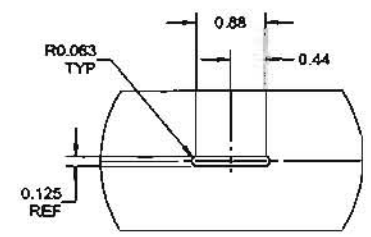
DETAIL C
END SLOT DETAIL 2 PL



DETAIL E
SLOT DETAIL TYP



SECTION B-B



DETAIL D
SLOT DETAIL TYP

- NOTES:**
- 1) MATERIAL : AISI 304/316 STAINLESS STEEL PER AMS 5613 OR 5524 OR ASTM A240 OR ASME SA240 18 GAUGE 0.050 THICK (REF. DART SPEC. M304S18GA)
 - 2) FINISH : NONE
 - 3) TOLERANCES : PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS : INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES : 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION : NONE
 - 7) WEIGHT : 2.95 lbs

68297

DESIGN	SC	DART AEROSPACE USA, INC.	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D4154	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE ASSEMBLY	NTS
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8 7 6 5 4 3 2 1

